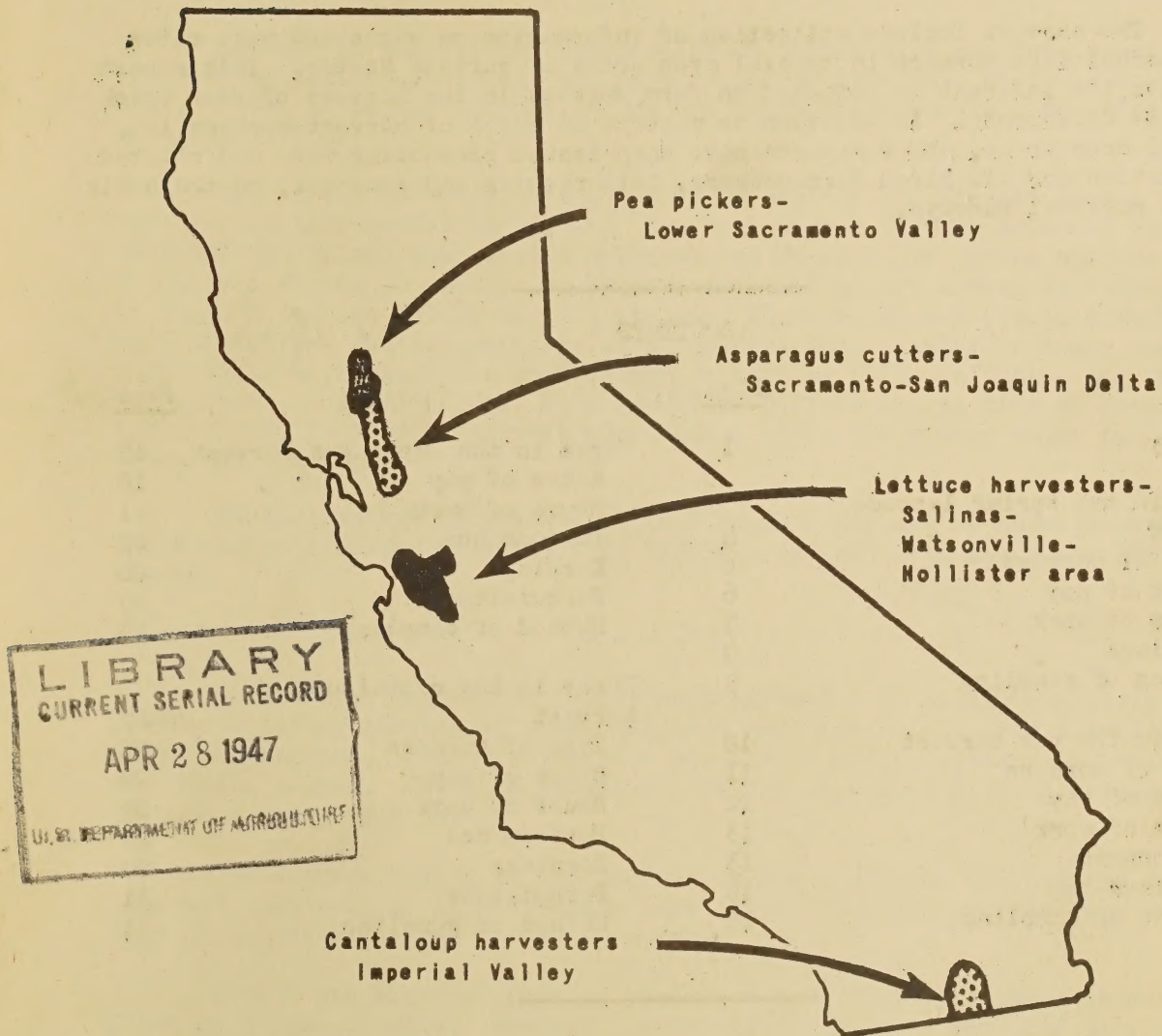


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UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics

WAGES AND WAGE RATES OF SEASONAL FARM WORKERS IN THE
HARVEST OF SELECTED TRUCK CROPS, CALIFORNIA, 1945



Surveys of Wages and Wage Rates in Agriculture, Report Number 10

Washington, D. C.
April 1946

PREFATORY NOTE

This is the tenth of a series of reports issued by the Bureau of Agricultural Economics, presenting results secured from enumerative sample surveys of farm wages and farm wage rates. The surveys were planned and conducted under the general direction of Conrad Taeuber, Office of the Chief, by a Bureau-wide Committee, with Louis J. Ducoff as Chairman. Members of the Wage Project Committee are as follows: Glen T. Barton, Emerson M. Brooks, Charles F. Cannell, Charles A. Gibbons, Margaret Jarman Hagood, Roger F. Hale, Earl E. Houseman, Barbara B. Reagan. The State Agricultural Statisticians cooperated in conducting the field operations of the surveys.

The surveys include collection of information on wages and wage rates of seasonal farm workers in special crop areas of various States. This report presents the information obtained on farm workers in the harvest of four truck crops in California. In addition to reports on wages of harvest workers in special crop areas, other reports have been issued presenting wage and related information for all hired farm workers, both regular and seasonal, on the basis of the national surveys.

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Prepared by William H. Metzler. Special acknowledgment is made to George Scott, State Agricultural Statistician, and to Catherine Senf and Wynne Rowlands of his staff for supervising the field work.

WAGES AND WAGE RATES OF SEASONAL FARM WORKERS IN
SELECTED TRUCK CROPS, CALIFORNIA, 1945

SUMMARY

The harvest of spring vegetable crops in California in 1945 was delayed by cool weather, and yields tended to be spotty. This applied to all four of the vegetable harvests surveyed by the BAE during May and June 1945: lettuce in the Salinas-Watsonville-Hollister area, peas in the Sacramento Valley, asparagus in the Sacramento-San Joaquin Delta, and cantaloups in the Imperial Valley.

Lettuce in the Salinas-Watsonville-Hollister area was cut largely by crews of Mexican Nationals who were paid a uniform rate of 70 cents an hour. Rates of pay of foremen, truck and tractor drivers were 85 cents to \$1.05 an hour.

The survey was made during the early part of the harvest season and work was still somewhat irregular. The harvest was further advanced in the vicinity of Salinas than around Hollister or Watsonville, hence cutters at Salinas earned an average of \$7.60 a day and \$44.80 a week as compared to \$6.90 a day and \$30.40 at Hollister and \$5.50 a day and \$27.00 a week at Watsonville. Small operators were somewhat less regular in their operations than the large. One crew worked as much as 88 hours during the week, and another, only 21 hours. As a result of differences in time of maturing the crop and in size of harvest operations, there was a wide range in hours and earnings.

Foremen worked an average of 10.7 hours a day and 60 hours a week. Their earnings ranged from \$3.70 to \$12.50 a day and from \$47.50 to \$75.00 a week.

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Peas in the Sacramento Valley were harvested by highly migratory crews consisting largely of local Mexicans and whites, but with a small number of Negroes. They worked on a piece rate basis, usually 60 cents per 30-lb. hamper. Crews on poorer fields and on second picking ordinarily were paid above this rate.

The average output of the pickers in the study was 1.5 hampers an hour and 11.9 hampers in a 7.9-hour day. These brought average cash earnings of 94 cents an hour and \$7.20 a day.

Output was affected more by yield per acre than by whether it was first or second picking. Average output was 1.2 hampers per hour on fields yielding under 50 hampers, 1.4 on those yielding 50-100 hampers, and 1.7 on those yielding over 100 hampers.

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Asparagus cutting in the Sacramento-San Joaquin delta was done largely by Filipino crews, but some operators were using crews of Mexican nationals. The former were paid on a piece rate basis, but most of the Mexican workers

preferred to be paid by the hour. Filipino cutters cut an average of 56.9 pounds of white asparagus or 52.6 pounds of green asparagus per hour. For this their earnings were \$1.74 and \$1.86 respectively. The average work day was 8.1 hours for the crews cutting white asparagus, and 7.8 hours for those cutting green. Average earnings per day were \$14.20 and \$14.60 for the two types of asparagus. Earnings varied to a greater extent with yield than they did with age of the bed or type of soil.

Mexican nationals working on piece rates earned \$1.03 an hour and \$7.10 a day, approximately half as much as the experienced Filipino cutters. Those on an hourly basis worked an average of 10.8 hours per day for which they were paid \$7.80.

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Harvesting of cantaloups in the Imperial Valley was performed by crews of local Mexicans. Most of these workers were paid on a piece rate basis, 20 to 22 cents a packed out crate, but a few crews were paid on a straight \$1.00 an hour basis.

Piece rate workers worked an average of 11.2 hours per day. Their earnings averaged \$1.35 an hour or \$13.30 a day. The hourly workers worked 6.2 hours per day and made \$6.20 a day. Members of the latter group were usually year round employees and sacrificed high returns during the harvest season for security of employment.

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INTRODUCTION

In California in 1944, 664,850 acres of commercial vegetables were harvested in the state with an estimated total value of \$256,991,000. ^{1/} Labor requirements for those crops were estimated by the Agricultural Extension Service Farm Labor Project as close to 50,000 workers at the peak seasons in May and October, and as low as 20,000 during late December and early January. ^{2/}

Leading vegetable areas of the State are: first, the San Joaquin-Sacramento delta, where approximately 100,000 acres of land are devoted to asparagus, peas, onions, potatoes, and other crops; second, Monterey County, with 75,000 acres in vegetables, principally lettuce and carrots; third, Imperial County with 74,000 acres largely in cantaloups, lettuce, carrots and peas; and fourth, Kern County with 67,000 acres, mostly in early potatoes. Other important vegetable areas are in Los Angeles, Santa Clara, Santa Barbara, and Alameda Counties.

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- ^{1/} "Vegetable Crops in California", Carl M. Schiller and George A. Scott, California Crop and Livestock Reporting Service, April 1945.
 - ^{2/} "Labor Requirements for California Crops, Major Seasonal Operations". Mrs. Margot Lenhart, Univ. of California Agricultural Extension Service Farm Labor Project, July 1945.

It was not feasible to make wage rate studies for the harvests of all vegetable crops in each of the areas in the State. For this reason, only the following were covered: winter vegetables in Imperial County, reported on in Number Two of the Bureau of Agricultural Economics Surveys of Wages and Wage Rates in Agriculture Series 3/; ice-pack lettuce in Monterey County, cannery asparagus in the Sacramento-San Joaquin delta, market peas in the lower Sacramento Valley and cantaloups in Imperial County. The last four are covered in the present report. Harvest of each crop has been treated separately, as the data obtained are not always comparable.

3/ "Wages and Wage Rates of Seasonal Farm Workers in Maricopa County, Arizona, and Imperial County, California, February-March 1945."

WAGES IN THE SPRING LETTUCE HARVEST, SALINAS-WATSONVILLE-
HOLLISTER AREA, CALIFORNIA, APRIL 26 - MAY 3, 1945

Vegetable growers in California are highly dependent on shipping outlets. Consequently, large growers have become grower-shippers, shipping both their own produce and that raised by their neighbors. Furthermore, they have developed holdings and shipping facilities in various parts of the State in order to provide eastern markets with a steady supply and larger variety of produce.

The lettuce harvest in the Salinas-Watsonville-Hollister area is handled by approximately 35 shipping firms. These firms produce a large quantity of the lettuce themselves and buy the remainder from small operators. Less than 5 percent of the lettuce in the area is dry-packed for local markets; the bulk of it is ice-packed for shipment to New York and other eastern outlets.

The producing area is divided naturally into three parts: first, the Salinas-Soledad area extending south along the Salinas River to Soledad, a strip 30 miles long and 5 miles wide in Monterey County; second, the Watsonville area extending for 15 miles along the Pajaro River from Chittenden Pass to the ocean and embracing a part of Santa Cruz and a part of Monterey County; and third, the Hollister area extending for about 10 miles along the San Benito River in San Benito County. Lettuce acreages in 1944 for the three counties were as follows: Monterey, 14,330 acres; Santa Cruz, 2,480 acres; and San Benito, 1,170 acres. Acreages in 1945 were somewhat larger than these, but in about the same proportions.

Table 1.--Acreage and labor requirements during the early part of the spring lettuce harvest, Salinas-Watsonville-Hollister area, California, 1945.

	County		
	Monterey	Santa Cruz	San Benito
Acreage in lettuce <u>1/</u>	14,330	2,480	1,170
Workers employed week ending, <u>2/</u>			
April 14, 1945	1,200	-	-
April 21	1,500	-	-
April 28	1,800	800	400
May 5	2,000	825	400
May 12	2,100	825	400
May 19	2,100	825	400
May 26	1,800	825	400
June 2	1,400	825	300
June 9	1,400	800	300

1/ Data for 1944 from California Crop and Livestock Reporting Service "Vegetable Crops in California, April 1945." Acreages in 1945 somewhat higher.

2/ Data from California Weekly Farm Labor Reports, Agricultural Extension Service Farm Labor Project.

Week of survey is underlined.

Field operations are conducted by the grower-shippers who move work crews from field to field as the lettuce is ready for harvesting. Most plantings are made in such a way that the crops will mature at 10-day intervals and allow the harvest to proceed continuously. According to the weekly reports of the Extension Service Farm Labor Office, the lettuce harvest was somewhat late in 1945. Cool spring weather delayed cutting the earlier plantings and brought about unusual activity during the peak season. Cutting along the Salinas River started during the first half of April and reached its peak during the middle of May (table 1). Cutting in the other valleys had just begun at the time the survey was made. The survey therefore covered some firms that were operating at top capacity and others that were not yet up to full production. The total number of harvest workers employed in the area reached 3,000 during April and went up to 3,325 during the first part of May.

Lettuce cutting is a hand operation performed by crews of workers who move along the rows and cut the mature heads of lettuce with a spatula shaped knife with a broad flat or V-shaped cutting edge. The heads to be cut are selected by feeling them for firmness and by observation as to their size, color, and freedom from defects. Cutting is done by holding the head and thrusting the blade of the knife against the root at a point just below the surface of the ground. The cutter then throws the heads on a conveyor belt moving down the row ahead of him, which carries them into the trucks. In smaller operations the workers may place the cut heads of lettuce in a crate, toss them into a truck, or leave them in a row for other workers to load on to trucks. Most of the operators, however, now use drapers, or conveyor belts.

Table 2.--Type of worker engaged in the lettuce harvest, Salinas-Watsonville-Hollister area, California, April 26 - May 3, 1945.

Type of worker	All areas		Sub-area		
			Salinas	Watsonville	Hollister
	Number	Percent	Number	Number	Number
All workers	1,802	100			
Cutters and loaders					
Mexican nationals	1,453	81	923	460	70
Local Mexican	18	1	18	-	-
Filipino	174	10	174	-	-
Loaders					
Mexican nationals	6	1/	6	-	-
Truck, tractor and draper drivers					
Mexican nationals	43	2	3	40	-
U. S. whites	41	2	41	-	-
Foremen					
Mexican nationals	11	1	11	-	-
Local Mexicans	6	1/	6	-	-
Filipino	46	3	44	1	1
U. S. white	4	1/	3	1	-

1/ Less than 1/2 of 1 percent.

Type of worker.--Records as to wages and earnings were obtained from a sample of 1,802 workers employed in the harvest. Of the cutters, 1,453 or 88 percent were Mexican nationals, 174 or 11 percent Filipinos, and 18 or 1 percent local Mexicans (table 2). In previous years much of the work had been done by Filipinos, but most of these migrated into defense industries or other urban employment during the war and the lettuce operators contracted to employ Mexican nationals instead. While the Mexicans do not work as rapidly as the Filipinos, they are reported to be steady and dependable.

No women or children are employed for this type of work.

Table 3.--Wage rates of workers engaged in the lettuce harvest by type of worker, Salinas-Watsonville-Hollister area, California, April 26 - May 3, 1945.

Type of worker	Workers reporting	Hourly wage rates						
		\$.70	.75	.80	.85	.90	1.00	1.05
All workers								
Number	1,802	1641	8	14	33	56	39	11
Percent	100	91	1/	1	2	3	2	1
Cutters and loaders								
Mexican national	1,453	1453	-	-	-	-	-	-
Local Mexican	18	18	-	-	-	-	-	-
Filipino	174	170	4	-	-	-	-	-
Loaders								
Mexican nationals	6	-	-	-	-	-	-	-
Truck, tractor and draper operators								
Mexican nationals	43	-	-	-	3	8	32	-
U. S. white	41	-	-	-	30	-	-	11
Foremen								
Mexican nationals	11	-	-	-	-	11	-	-
Local Mexicans	6	-	-	-	-	6	-	-
Filipino	46	-	4	14	-	28	-	-
U. S. white	4	-	-	-	-	3	1	-

1/ Less than 1/2 of 1 percent.

Rates of pay.--All workers were paid on an hourly basis. Of 1,645 cutters, all but 4 were paid 70 cents an hour (table 3). These four performed extra duties and obtained a wage rate of 75 cents.

Sixty-seven of the workers were designated as foremen. Of these 46 were Filipinos, 11 Mexican nationals, 6 local Mexicans, and 3 U. S. whites. The usual rate of pay for foremen was 90 cents an hour, though a number received 75 and 80 cents.

The sample included 84 workers who handled trucks, tractors, or drapers. They were usually paid 85 cents, \$1.00, or \$1.05 per hour, depending on the size of the equipment handled and the amount of responsibility involved.

Hours of work.--Because of special conditions, the hours of work in the 1945 season were highly variable. Firms with large holdings of early lettuce that had all ripened at the same time were working at top capacity. Others were just getting into operation. One Filipino crew in the Salinas district worked an average of 12.7 hours a day and 88.2 hours during the week. At the other extreme, a crew of Mexican nationals averaged only 6.0 hours a day for $3\frac{1}{2}$ days during the week or a total of 21 hours. In general, the larger firms in the Salinas area had the heaviest operations while the smaller ones at Watsonville and Hollister operated only part of the week.

Table 4.--Average hours and days of work of lettuce harvesters by area, operations, and type of worker, Salinas-Watsonville-Hollister area, California, April 26 - May 3, 1945 1/

Type of worker	Average time worked							
	Entire area		Salinas		Watsonville		Hollister	
	Hours	Days	Hours	Days	Hours	Days	Hours	Days
	Per day	Per week	Per day	Per week	Per day	Per week	Per day	Per week
Cutters and loaders								
All	10.3	5.6	10.8	5.9	7.8	4.9	9.9	4.4
Mexican national	10.2	5.7	10.7	6.0	7.8	4.9	9.9	4.4
Local Mexican	9.7	4.7	9.7	4.7	-	-	-	-
Filipino	11.5	5.3	11.5	5.3	-	-	-	-
Truck, tractor and draper operators								
All	9.5	5.1	10.6	5.0	6.1	4.0	-	-
Mexican national	7.0	4.1	2/	-	6.1	4.0	-	-
U. S. white	11.6	6.0	11.6	6.0	-	-	-	-
Foremen								
All	10.7	5.6	10.7	5.5	2/	-	2/	-
Mexican national	13.2	5.0	13.2	5.0	-	-	-	-
Filipino	10.3	5.6	10.3	5.6	2/	-	2/	-

1/ The number of cases involved are to be found in table 2.

2/ No average shown where fewer than 10 workers were involved.

The differences in hours of work for the various firms are partly obscured by the averages in table 4. This is more true of the averages by area than by type of worker. Workers around Salinas averaged 10.8 hours per day compared to 9.9 hours at Hollister and 7.8 hours at Watsonville. They averaged close to 6 days of work during the week, compared to 4.4 hours and 4.9 hours at the smaller centers of production.

Local differences in length of operation during the survey week are reflected in the data on hours per day and per week of various types of crews. Operators in the Salinas area using Filipino crews worked them an average of 11.5 hours a day; those using local Mexicans, 9.7 hours. Likewise local Mexican crews averaged only 4.7 days a week, whereas Filipino crews worked 5.3 days and Mexican nationals, 5.7 days.

Table 5.--Average cash earnings of lettuce harvesters, Salinas-Watsonville-Hollister area, California, April 26 - May 3, 1945 1/

Type of worker	Average earnings of workers			
	Entire area	Salinas	Watsonville	Hollister
<u>Dollars per day</u>				
Cutters and loaders				
All	7.30	7.60	5.50	6.90
Mexican nationals	7.20	7.50	5.50	6.90
Local Mexicans	6.80	6.80	-	-
Filipino	8.10	8.10	-	-
Truck, tractor and draper operators				
All	8.80	10.50	6.00	-
Mexican nationals	6.20	<u>2/</u>	6.00	-
U. S. white	10.60	10.60	-	-
Foremen				
All	9.30	9.30	10.90	<u>2/</u>
Mexican nationals	12.00	-	-	-
Filipino	8.90	8.70	<u>2/</u>	<u>2/</u>
<u>Dollars per week</u>				
Cutters and loaders				
All	40.90	44.80	27.00	30.40
Mexican nationals	41.00	45.00	27.00	30.40
Local Mexicans	32.00	32.00	-	-
Filipino	42.90	42.90	-	-
Truck, tractor and draper operators				
All	44.90	62.00	24.00	-
Mexican nationals	25.40	<u>2/</u>	24.00	-
U. S. white	63.60	63.60	-	-
Foremen				
All	52.10	51.20	65.40	<u>2/</u>
Mexican nationals	60.00	60.00	-	-
Filipino	49.80	47.90	<u>2/</u>	<u>2/</u>

1/ The number of cases involved is to be found in table 2.

2/ No averages shown when fewer than 10 workers were involved.

Earnings.--As the rate of pay was highly uniform, the daily and weekly earnings of lettuce cutters varied only according to the number of hours worked. These hours varied widely from firm to firm. Differences in earnings according to nationality of the workers probably are important only as indicating the spread of earnings from one firm to another in the same area. Filipino cutters at Salinas earned an average of \$8.10 a day and \$42.90 for the week, whereas local Mexicans made \$6.80 a day and \$32.00 during the week.

Area differences in earnings are largely the result of varying states of maturity of the crop and differing size of operations. Workers in the Salinas area earned an average of \$7.60 a day and \$40.90 a week. At the other extreme, those in the Watsonville area made only \$5.50 a day and \$27.00 for the survey week (table 5).

Foremen, truck and tractor drivers, and loaders earned somewhat larger amounts. The average wage for all foremen was \$9.30 a day, while truck and tractor drivers averaged \$8.80.

Method of sampling.--Although there are many lettuce growers in this area, the bulk of the harvest is handled by a relatively small list of grower-shippers, who contract to purchase the crops of small operators, in addition to harvesting their own acreages. The California Cooperative Crop Reporting Service, which prepares estimates of acreages planted by 10-day periods throughout the season, was able to furnish a list of 35 grower-shippers whose operations were expected to account for an estimated 98 percent of the total ice-pack harvest in the area at the time of the survey. (About 5 percent of all lettuce in the area is dry-packed during the season represented by the survey, but no attempt was made to obtain information on dry-packing.) The list was checked for completeness with the local growers association.

Firms were divided into three location groups. Those at Salinas and Watsonville were further subdivided into large and small firms before drawing a sample of every 4th firm from each size-location group. Owing to the small number of firms in each area, and to some enumeration difficulties, the sample obtained was not exactly proportional in each area. Data were obtained from 7 of 23 firms at Salinas, 4 of 10 firms at Watsonville, and from both of the 2 firms at Hollister. As significant differences were found in the hours worked between areas, the results relating to all areas combined were obtained by weighting together the results from the sub-areas in accord with the actual rates of sampling.

Data as to number of workers, operations performed, average hours of work and earnings have been weighted accordingly. Figures for large firms in the Salinas area have been given a weight of 3.7, those for small firms in that area of 3; figures for small firms in the Watsonville area have been given a weight of 4, while figures for large firms at Watsonville and for all firms at Hollister were given a weight of 1.

WAGES IN THE PEA HARVEST
SACRAMENTO VALLEY, CALIFORNIA,
MAY 16 - 24, 1945.

Pea pickers are among the most migratory of all farm workers in California. It is common for them to engage in the pea harvest in the Imperial Valley during the winter months, then move on to the west side of the San Joaquin Valley or to the central coast area in March, then on to the Sacramento Valley in May (table 6). The spring pea harvest ends by the first part of June and fall peas are ready for harvest by the latter part of August. In September the workers move south from the Santa Clara - San Benito area to the southern San Joaquin area. In November they move on to the Imperial Valley again.

Harvest operations for this crop are much less stable than the above account would indicate. Pea growing is quite a speculative venture and some pea operators are almost as mobile as the workers. The pea grower frequently rents his land on an annual basis. He can then shift his operations from place to place and thus avoid insect infestation and take advantage of weather conditions. Crop failures are frequent, owing to frost, rainfall, insects, and other factors. Hence, pea pickers do much fruitless moving. Their movements must be timed quite accurately, as local harvest seasons last only a few weeks and by lateness in moving they may miss the harvest in an area altogether. When they move too early they may find a good field and camp beside it for a couple of weeks waiting for the peas to mature. Workers flock to such a field and pick it out in a short time whereas other growers in the neighborhood may have to disk up their peas because the yield is so light that the workers refuse to pick them.

Table 6.--Number of workers employed at picking peas in the major pea-producing counties of the San Joaquin and Sacramento Valleys, April 28 - June 2, 1945 ^{1/}

Area	Workers reported for week ending:					
	Apr. 28	May 5	May 12	May 19	May 26	June 2
San Joaquin Valley						
Kern County	3000	2500	-	-	-	-
San Joaquin County	2000	400	400	-	-	-
Sacramento Valley ^{2/}						
Yolo County	-	400	1200	1200	-	-
Sacramento County	-	-	800	1000	400	100

^{1/} Figures from California Weekly Farm Labor Reports, Agricultural Extension Service Farm Labor Project.

^{2/} BAE survey also covered harvest operations in Solano County for which Farm Labor Project data were not available.

Most of the peas in the Sacramento area are grown by a few large operators who make advance arrangements with labor contractors for their supply of pickers. Actually, however, pickers refuse to stay in poor fields and flock to the good ones in spite of their connections with the labor contractors. There is no hiring contract. A picker merely obtains a hamper and starts picking. When his hamper is full he brings it to the checking stand. Here it is checked to see that it weighs a full 30 pounds and does not have too many immature or overripe pods in it. The picker then is paid in cash or in scrip and obtains another hamper. No record is made of the name of the picker or the crew he belongs to. When a field is finished, the pickers are told where to find the next one they will work on.

There may be from 100 to 500 workers in a field at any given time. They start when they please, usually at 7 or 8 a.m.; quit by noon if their earnings aren't encouraging, or work on till 5 or 6 o'clock if they are doing well.

The 1945 pea season in the Sacramento Valley was a disappointment to both growers and workers. The weather was too cool and unsettled to bring the peas to maturity at the normal time. As a result, the season was late and there was hardly time to grow a second crop. Yields were only 100 to 125 hampers per acre, as compared to 200 to 225 in normal years.

Pea picking started slowly around the 12th to 16th of May and ended by the 29th. Reports of the Farm Labor Project of the Agricultural Extension Service indicate that the peak employment occurred around May 19th and that some 2,200 workers were employed in the Sacramento Valley area at that time (table 6).

Enumerators for the Bureau of Agricultural Economics took records during the period from May 16th to May 24th. Each record covered the operations on a particular field of peas for one day. Since the number of pickers at work in a field varied from time to time during the day, they were counted at 8, 11, and 12 o'clock in the morning and at 1, 2, 3, 4, and 5 o'clock in the afternoon. Information as to the total number of hampers picked was obtained from the checker at the end of the day. This method provided average hours, performance and earnings for the crew.

Type of worker.--As there was much shifting about from field to field on the part of pea pickers, it was impossible to determine how many times any one person may have entered into the sample. Enumerators, however, tried to avoid obtaining data on the same group of workers more than twice. Data were secured from the pickers in 23 fields which contained an average of 121 workers. Hence figures on 2,804 man-days of work were obtained. Pea picking is a family operation and the families that follow this work are often quite large. Approximately 70 percent of the workers were male and 30 percent female. Ten percent of the males were under 14 years of age and 15 percent of the females. Younger workers frequently picked into the same hampers as their parents.

Data as to race were not obtained for all workers. Slightly over half of the 2,185 man-days that were reported on were put in by Mexicans, almost 40 percent by migratory U. S. whites and 7 percent by Negroes (table 7). All racial groups worked in the same fields without friction. There was some tendency for members of the same race to congregate together in the same part of the field, but as the picking proceeded this separation was not maintained. In 19 fields in which a racial count was made, 2 were being picked entirely by migratory U. S. whites and all the rest by mixed crews. Eleven had members of all three races, 5 had migratory U. S. whites and Mexicans, and 1 had both Mexicans and Negroes.

Table 7.--Sex, age, and nationality of pea pickers surveyed, Sacramento Valley, California, May 16 - 24, 1945. 1/

Sex, age, nationality	Number	Percent
Workers reporting sex and age	2,673	100
Male	1,869	70
Under 14	187	7
Over 14	1,682	63
Female	804	30
Under 14	118	4
Over 14	686	26
Workers reporting race	2,185	100
Mexican	1,191	54
White	845	39
Negro	149	7

1/ Though enumerators tried to avoid duplication, some workers have been included in the survey two or more times.

Rates of pay.--Peas are picked in 30-lb. hampers on which the federal wage ceiling rate in 1945 was 60 cents a hamper. In all but two of the 18 fields surveyed during the first picking, workers were paid at the ceiling rate. Those two were fields with very light yields and workers were paid 65 cents a hamper by special permission from the State Wage Board. Second pickings were being made in five of the fields surveyed. In two of these, workers were paid 60 cents a hamper, in one 65 cents, and in two 90 cents (table 8).

The rate paid per hamper varied quite closely with the yield per acre both on the first and second picking.

Table 8.--Rates paid per hamper for picking peas in the Sacramento Valley, California, May 16 - 24, 1945.

Picking and rate per hamper	Fields on which each rate was paid:	Workers paid at: each rate	Proportion of workers paid at each rate
All fields and workers	23	2,802	-
<u>First picking</u>			
Fields and workers	18	2,266	100
\$.60	16	2,174	96
.65	2	92	4
<u>Second picking</u>			
Fields and workers	5	536	100
.60	2	249	46
.65	1	89	17
.90	2	198	37

Hours of work.--The average work day of the crews surveyed was 7.9 hours. This figure, however, cannot be said to represent a usual workday. Workers in one crew on a poor field averaged only 4.0 hours, those in another crew averaged 10.2 hours (table 9). It was common for a crew of 200 to thin down to 125 or 150 by noon. One crew of 400 on a poor field dwindled to 143 by 10 o'clock in the morning. Length of the work-day also depended on the amount of work to be done in a particular field. When workers picked out a field by 12:30 or 1 p.m. they usually called it a day, instead of starting to work in another.

Table 9.--Hours worked during day on surveyed fields by pea picking crews, Sacramento Valley, California, May 16 - 24, 1945.

Hours worked	Number crews	Proportion of crews
Crews reporting	23	100
Under 7 hours.	4	17
7 - 7.9	9	40
8 - 8.9	5	22
9 - 9.9	4	17
10 and over	1	4

Performance.--The average output of all pickers in the study was 1.5 hampers of peas per hour and 11.9 hampers in a 7.9-hour day (table 10). The crew with the lowest output averaged one hamper per hour, while the one with the highest averaged slightly over 2 hampers. Workers in one crew averaged 18.4 hampers in a day of 10.2 hours.

As data were obtained on a crew basis, figures on output could not be compiled according to age, sex and race of the individual workers. Averages were computed, however, in regard to performance on first and second pickings, according to yield per acre, and for upland and delta areas.

Differences in output were not significant from one part of the area to another. There were good and poor fields in all sectors. The quality of the fields was the factor that made the most difference in performance. Average output in the delta area was 1.47 hampers per hour and in the upland 1.59.

There was also very little difference in rate of performance between the first and second pickings. In the first the average was 1.50 hampers per hour and in the second 1.51. This was in spite of the fact that average yield per acre on the first picking was 103.6 hampers and only 78.6 hampers on the second.

Only five crews were surveyed on the second picking, compared to 18 on the first. A good many operators made only one picking. Three of the crews surveyed on second picking were located in the delta and two in the upland area. This is contrary to the usual expectation that delta operators make two or three pickings whereas upland operators take off their crop in one. Weather conditions interfered with the growth of the peas to a greater extent in the delta area than in the upland section.

Table 10.--Average output and earnings of pea pickers, according to area, picking, and yield per acre, Sacramento Valley, California, May 16 - 24, 1945.

	Man-days reported	Hampers picked Per hour	Hours worked Per day	Average rate per hamper	Cash earnings Per hour	Cash earnings Per day
Total	2802	1.5	11.9	7.9	.63	\$7.20
Area						
Upland	1083	1.6	11.9	7.8	.62	7.30
Delta	1719	1.5	11.9	8.0	.64	7.20
Picking						
First	2266	1.5	11.9	7.9	.60	7.10
Second	536	1.5	11.7	7.8	.72	8.40
Yield per acre 1/						
Under 50 hampers	433	1.2	9.1	7.6	.75	7.10
50 - 99 hampers	1257	1.4	11.7	8.1	.60	7.10
100 hampers and over	1112	1.7	13.1	7.7	.60	7.80

1/ Yield per acre at the picking when the survey was taken.

Five of the crews worked in fields having yields less than 50 hampers to the acre. ^{4/} Workers in those crews picked an average of 1.2 hampers an hour or 9.1 hampers in a 7.6-hour day. Eight crews worked in fields yielding from 50 to 100 hampers per acre. They averaged 1.4 hampers an hour and 11.7 a day. Ten crews were working in fields with yields of over 100 hampers an acre. They picked an average of 1.7 hampers per hour or 13.1 hampers a day.

These outputs are equal to the usual expectation in spite of the poor season. R. L. Adams, specialist in farm labor at the University of California, and field men for the Extension Service Farm Labor Offices state that 10 hampers is an average day's performance.

Earnings.--The earnings of the pickers were quite as variable as their performance and hours of work. The average earnings for all workers was 94 cents an hour, with members of one crew averaging only 60 cents an hour and those in another averaging \$1.54 (table 10).

The range in earnings per day was even greater. Members of the crew with the smallest output averaged only \$2.70, while members of another crew averaged \$11.80. The average earned by all pickers was \$7.17.

Table 11.--Amounts earned by pea picking crews per hour and per day, Sacramento Valley, California, May 16 - 24, 1945.

Earnings	Crews earning stated amounts	
	Number	Percent
<u>Per hour</u>		
Crews reporting	23	100
Under \$.75	7	30
\$.75 - .99	7	30
\$1.00 and over	9	40
<u>Per day</u>		
Crews reporting	21 ^{1/}	100
Under \$6.00	7	33
\$6.00 to \$8.49	8	38
\$8.50 and over	6	29

^{1/} Report on 2 crews did not cover a full work day.

Average earnings for approximately one-third of the crews ran from 60 to 75 cents an hour and from \$2.70 to \$5.75 a day. Another third had earnings of from 75 cents to \$1.00 an hour and from \$5.75 to \$8.50 a day. The top one-third of the crews had earnings of over \$1.00 an hour and over \$8.50 a day (table 11).

^{4/} As differences in output were quite small between first and second picking and from one part of the area to another, the records of all crews were pooled to obtain performance on a yield basis.

Earnings on the second picking were higher than on the first as wage rates for the second picking had been increased in order to hold the pickers. The average return per hour was 90 cents on the first picking and \$1.09 on the second. Variability in earnings per worker was about the same for both pickings.

Method of sampling.--From 80 to 90 percent of the fresh market peas in this area are handled by 12 grower-shippers who move crews of pickers about from field to field as the peas are ready for harvest. Information as to the location of picking crews on any day must be obtained the day before from the shippers. Because of the large size of crews, their shifts in size during the day, and the method of paying off workers, it was not feasible to get individual worker information. As earnings were known to vary chiefly with yield, plans were made to sample crews of each shipper on two non-consecutive days, to obtain results from as many fields as possible. Selection of days on which the crew of any shipper would be included in the sample was restricted by the need for spreading the enumeration work over the period of the survey, and the fact that most of the shippers were expecting to quit harvesting at various times during the period available for the survey.

Information was obtained from all shippers as to expected date of completion of harvest before allocating the enumeration days among the shippers. Weather and crop conditions forced many shippers to quit earlier than expected, with the result that data were obtained from 23 instead of 28 fields.

Yield information was judgment data obtained from the contractor when schedules were picked up at the end of the day. Information on man-hours and man-days was based on field estimates of the number of persons working at various times during the day, the maximum number during the day being counted as the man-days.

WAGES IN THE ASPARAGUS HARVEST,
SACRAMENTO-SAN JOAQUIN DELTA, CALIFORNIA
MAY 25 - JUNE 10, 1945.

Asparagus is grown in many parts of the United States but the largest commercial acreage is located in the delta area of the San Joaquin and Sacramento Rivers. Asparagus matures there by the latter part of February, six weeks ahead of the harvest season in the Eastern States. Early asparagus is cut for the fresh market in New York, Philadelphia and other eastern cities. When the eastern asparagus comes into the market in April, California growers begin sending their crop to local canneries. The cutting season lasts until the middle or latter part of June, depending on the weather.

Labor requirements for harvesting this crop are most rigid. When the harvest season has begun, each bed must be cut over every day, otherwise the asparagus spears become fibrous and unusable. This need is continuous for the 100 days of the harvest period.

Cutting is ordinarily done by crews of Filipino workers who are especially skilled at this operation. They move along the rows of asparagus and cut each spear that has attained the desired height. In cutting white asparagus for cannery use, the spears must be cut before they reach a height of $3\frac{1}{2}$ inches above the ground. In cutting green asparagus, the spear must show over $4\frac{1}{2}$ inches above the ground in order to have enough of the desired green color. The spears are cut with a knife and placed in bunches on the row of asparagus. A sled driver picks up the asparagus and hauls it into the grower's packing shed.

The supply of experienced Filipino cutters has dwindled during the past several years and some growers have employed crews of Mexican nationals instead. These nationals work quite steadily, but are not as fast as the Filipino cutters.

Weather conditions in the 1945 season were not favorable to the development of the crop. As a result, many workers quit early in the season and others refused to cut the poorer beds. The fact that only the more productive beds were cut may affect to some extent the results obtained in the wage and earnings survey. A similar situation, however, has obtained for the past three years and was not unknown before that time.

The records taken covered the pay period from the 25th of May to the 10th of June. According to reports of the Farm Labor Project of the Agricultural Extension Service, the asparagus harvest was 75 percent complete at that time. The reports also indicate that 6,700 workers were employed in the asparagus harvest (table 12). This was somewhat less than the peak employment earlier in the season. Four-fifths of these workers would ordinarily be engaged in cutting and the remainder in packing.

Table 12.--Acreage and labor requirements in asparagus, Sacramento-San Joaquin Delta, Spring 1945.

County	: Acres in :		Harvest season 2/			: Workers required : at peak 2/
	:Asparagus 1/	:Begin	: Peak	: End		
All counties	64,830	Feb. 14	March 23-June 30	July 15		7,400
San Joaquin	39,290	Feb. 15	April 10-June 30	July 15		4,800
Sacramento	8,220	March 1	April 15-June 17	July 7		600
Solano	2,740	March 5	April 10-June 5	June 17		300
Yolo	7,160	March 15	April 15-June 4	July 1		1,100
Contra Costa	7,420	Feb. 14	March 23-June 5	July 7		600

1/ Source: California Crop and Livestock Reporting Service, Vegetable Crops in California, April 1945.

2/ Source: Farm Labor Project, USDA and Univ. of California Cooperating, California Weekly Farm Labor Report.

Field data were collected only for Filipino cutters but figures on the performance and earnings of Mexican nationals were obtained from records of the War Food Administration. The field data covered the activities of 548 Filipino cutters, 224 of whom were cutting white asparagus, 282 green, and 42 market asparagus. It is unusual for asparagus to be cut for the fresh market at this season of the year and the number of cutters engaged in the operation was quite small, hence they have been omitted from this report.

The Filipino workers were members of 51 cutting crews. Six of the smaller crews did both cutting and packing.

In asparagus cutting, all Filipino crews operate as a unit. Earnings ordinarily are divided equally unless the crew contains members so much slower than the others that they are willing to take a smaller proportion of the total proceeds.

Approximately 1,200 Mexican nationals were employed by asparagus growers who were willing to use inexperienced help. Data were tabulated in regard to 525 of the Mexican nationals on whom records of hours, earnings, and type of work done were comparable to those made in the field study. The other Mexican nationals either did not perform asparagus cutting alone, or the reports as to their work were incomplete or timed differently from those for Filipino crews.

Rates of pay.--Wage rates for cutting asparagus have been a controversial issue for the past seven years. Expert Filipino cutters have gained a virtual monopoly on the performance of this operation and have been trying to get higher wages. A major strike was called by organized Filipino workers in 1939 and there have been numerous work stoppages by individual crews since that time. In 1943 the growers appealed to War Food Administration officials for a specific wage ceiling on the operations in their industry. This led to the inauguration of the specific farm wage ceiling program.

Table 13.--Wage rates paid for cutting asparagus according to type of asparagus, and method of payment, Sacramento-San Joaquin delta, California, May 25 - June 10, 1945.

Rate of pay	Number and proportion of workers paid each rate		Number and proportion of acres on which each rate was paid 1/	
	Number	Percent	Number	Percent
<u>White asparagus</u>	224	100	2370	100
<u>Cutting</u>				
Box basis				
\$1.15 per box	15	7	200	8
Cwt. basis				
\$2.75	66	29	596	25
3.25	143	64	1574	67
<u>Green asparagus</u>	332	100	2944	100
<u>Cutting</u>				
Box basis				
\$.90	9	3	100	2
1.10	30	9	162	6
1.22	10	3	-	1/
1.33	16	5	160	6
Cwt. basis				
\$3.00 2/	10	3	85	3
3.15	17	5	-	1/
3.25	82	25	876	30
3.75	158	48	1561	53
Hourly basis 3/				
\$.75	394	100	-	1/
<u>Green asparagus</u>	80	100	599	100
<u>Cutting and packing</u>				
Box basis				
\$1.30	14	17	130	22
Cwt. basis				
\$3.80	63	79	434	72
4.30	3	4	35	6

1/ Acreage data not available for Mexican national workers.

2/ Field run basis. No deduction for culls.

3/ Mexican nationals only.

The specific ceiling rate for cutting prime beds of white asparagus is \$2.75 a hundred pounds; for cutting green, \$3.25. Beds from 5 to 10 years old are designated as prime beds and those older and younger than that as non-prime. The ceiling rate on older and younger beds was \$3.25 and \$3.75 a hundred pounds for white and green respectively. Growers with poor yielding beds or with extra heavy soil were permitted to petition to pay above these rates.

Over 60 percent of the cutters of white asparagus were being paid the top rate of \$3.25 (table 13). The same was true for green; 48 percent of the workers were paid \$3.75, the rate established for non-prime beds.

Rates paid did not vary as consistently with yield, age of bed, and type of soil as would be anticipated (table 14). Wage ceiling rates were based on a differential of 50 cents a hundred pounds as between the two age groups. This differential had pretty well disappeared in the bargaining between the growers and their crews.

A few growers paid workers on the basis of a packed out box rather than by weight. Workers prefer this system of payment as it means they get paid for all asparagus cut. Growers dislike it as it may lead the workers to include obviously poor stalks of asparagus in the cut rather than to cast them aside in the field. When payment is on a weight basis the weight taken is ordinarily that of asparagus accepted by the cannery and excludes some 5 to 20 percent of cull asparagus.

Of the Mexican nationals, 131 were paid on a piece rate basis but the majority were paid by the hour. The hourly rate of pay was 75 cents.

Table 14.--Average hours of work, acreage cut, and rate of pay of asparagus cutters, according to type of worker, yield, age of bed, and type of soil, Sacramento-San Joaquin delta, California, May 25 - June 10, 1945.

Group of workers	Number : workers	Hours worked : Per day	Per week	Acres cut : per man-day	Average rate of pay per cwt.
<u>Filipino cutters</u>					
<u>White asparagus</u>					
All workers	224	8.1	57	10.6	\$3.05
<u>Daily yield per acre</u>					
Under 35 lbs.	121	8.1	57	10.0	3.15
Over 35 lbs.	103	8.1	57	11.3	3.00
<u>Age of bed</u>					
Under 5 years	50	8.1	57	10.9	3.10
5 - 9 years	142	8.2	57	10.8	3.04
Over 9 years	32	8.0	57	9.1	3.12

- continued -

Table 14.--Average hours of work, acreage cut, and rate of pay of asparagus cutters, according to type of worker, yield, age of bed, and type of soil, Sacramento-San Joaquin delta, California, May 25 - June 10, 1945, continued.

Group of workers	Number :		Hours worked :		Acres cut :		Average rate of	
	workers		Per day	Per week	per man-day		pay per cwt.	
<u>Type of soil</u>								
Peat	173		8.2	57	10.7		3.14	
Heavy	51		8.0	56	10.2		2.83	
<u>Green asparagus</u>								
All workers	282		7.8	55	12.6		3.54	
<u>Daily yield per acre</u>								
Under 25 lbs.	92		7.4	52	14.3		3.49	
25 - 40 lbs.	117		8.2	57	13.3		3.55	
40 lbs. and over	73		7.6	54	9.3		3.55	
<u>Age of bed</u>								
Under 5 years	104		8.1	57	13.2		3.64	
5 - 9 years	168		7.6	53	11.1		3.47	
Over 9 years								
1/	10		9.7	68	10.0		3.80	
<u>Type of soil</u>								
Peat	68		9.0	63	15.2		3.75	
Heavy	214		7.5	53	11.7		3.48	
<u>Mexican national</u>								
<u>Cutters</u>								
Piece rate workers								
(green asparagus)	131		6.9	48	-		3.43	
Hourly workers	394		10.8	75	-		-	

1/ Sample on this item consists of only one crew, hence is too small to provide reliable data.

Hours of work,--The Filipino cutter works rapidly in order to cover his daily acreage as quickly as possible. Ordinarily he starts to work at about 6 a.m. and finishes shortly after noon. The average time worked per day by Filipino crews was 7.9 hours. Cutters on white asparagus worked 8.1 hours and on green 7.8 hours.

Mexican nationals working at piece rates also tried to speed up their operations. They worked an average of 6.9 hours a day. Those who worked on an hourly basis put in 10.8 hours a day. Unfortunately data were not available to make a comparison of the daily output and acreage cut by these two groups of workers.

Performance.--Though the sample was rather small, the data were broken down to obtain the average output of Filipino cutters according to type of asparagus, yield and age of the bed, and type of soil. The workers averaged less than 10 percent difference in output for the two types of asparagus, 56.9 pounds per hour of white and 52.6 of green (table 15). This is contrary to traditional belief in the industry that because white asparagus weighs one-third more than green, workers should therefore be able to cut much more of it in the same length of time.

Table 15.--Average output and earnings of asparagus cutters, according to type of worker, yield, age of bed, and type of soil, Sacramento-San Joaquin Delta, California, May 25 - June 10, 1945.

	Number	: Lbs. asparagus cut	: Hours	: Average earnings				
workers:	Per hour	: Per day	: worked	: Per	: Per	: Per		
:	:	: per day	: hour	: day	: week			
								Dollars
<u>Filipino cutters</u>								
<u>White asparagus</u>								
All workers	224	56.9	463	8.1	1.74	14.20	99.10	
<u>Daily yield per acre</u>								
Under 35 lbs.	121	40.6	331	8.1	1.28	10.40	72.90	
Over 35 lbs	103	73.1	596	8.1	2.19	17.90	125.10	
<u>Age of bed</u>								
Under 5 years	40	45.2	371	8.2	1.40	11.50	80.40	
5 - 9 years	152	59.5	485	8.2	1.84	14.70	103.00	
Over 9 years	32	60.9	488	8.0	1.90	15.20	106.40	
<u>Type of soil</u>								
Peat	173	54.3	445	8.2	1.70	14.00	97.80	
Heavy	51	65.2	520	8.0	1.84	14.70	102.80	
<u>Green asparagus</u>								
All workers	282	52.6	412	7.8	1.86	14.60	101.80	

- continued -

Table 15.--Average output and earnings of asparagus cutters, according to type of worker, yield, age of bed, and type of soil, Sacramento-San Joaquin Delta, California, May 25 - June 10, 1945, continued.

	Number workers	:Lbs. asparagus cut:		Hours worked	: Average earnings		
		Per hour	Per day		Per : per day	Per : hour	Per : day : week
		:	:				<u>Dollars</u>
<u>Daily yield per acre</u>							
Under 25 lbs.	92	41.7	311	7.4	1.46	10.90	76.00
25 - 40 lbs.	117	56.4	463	8.2	2.00	16.40	115.10
40 lbs. and over	73	59.5	439	7.6	2.04	15.60	109.10
<u>Age of bed</u>							
Under 5 years	104	49.2	401	8.1	1.79	14.60	102.10
5 - 9 years	168	54.6	412	7.6	1.89	14.30	100.00
Over 9 years <u>1/</u>	10	51.4	500	9.7	1.95	19.00	133.00
<u>Type of soil</u>							
Peat	68	50.3	452	9.0	1.89	17.00	118.80
Heavy	214	53.3	402	7.5	1.85	14.00	97.90
<u>Mexican national</u>							
<u>Cutters</u>							
Piece rate workers	131	28.8	198	6.9	1.03	7.10	49.70
Hourly workers	394	<u>2/</u>	<u>2/</u>	10.8	.75	7.80	55.50

1/ Sample on this item consists of one crew, hence is too small to provide reliable data.

2/ No data on output of hourly workers.

Yield of asparagus per acre affected the output of cutters of white asparagus much more than of those who were cutting green. On beds of white asparagus yielding less than 35 pounds per acre per day, workers cut an average of 40.6 pounds per hour. On those yielding over 35 pounds per acre, the output was 73.1 pounds per hour, an increase of almost 80 percent. On green asparagus beds yielding under 25 pounds a day, the cutter harvested 41.7 pounds an hour, compared to 57.5 pounds on beds yielding over 40 pounds, a difference of 26 percent.

Output according to age of bed did not yield such significant differences, possibly because so many of the young and old beds were not cut. Output on prime beds of white asparagus averaged 59.5 pounds per hour

compared to 52.2 pounds for non-prime beds. The difference was entirely on the younger beds, the sample for which, officials of the California Asparagus Growers Association stated, was less adequate than for the other types of asparagus. The figures for green asparagus were 56.4 for prime and 49.4 for the non-prime beds. The range in age of beds was considerably greater for the green than for the white asparagus.

Cutters of white asparagus had a somewhat higher output on heavy clay soil than on the light textured peat. The outputs were 65.2 and 54.3 pounds per hour respectively. This undoubtedly is associated with the heavier yields on clay soil. On the beds in the sample, the average yield of white asparagus on heavy soil was 786 pounds per acre, on peat, 639 pounds. Workers cutting green asparagus on heavy soil also had a slightly higher output than those cutting on peat, 53.3 pounds as compared to 50.3. Here the yield factor was 597 pounds on heavy soil and 482 pounds on the peat.

Mexican nationals who worked on a piece rate basis were cutting green asparagus. They cut an average of 28.8 pounds per hour and 198.4 per day of 6.9 hours. Their output therefore was slightly over half that of the Filipino cutters.

Earnings.--Filipino workers cutting white asparagus earned an average of \$1.74 an hour. Those cutting green asparagus averaged \$1.86 per hour. This amounted to \$14.15 a day of 8.1 hours for the cutters of white asparagus and \$99.05 a week. Filipino workers cutting green asparagus made \$14.55 in a 7.8-hour day and \$101.85 a week (table 15).

Earnings of the crews were quite variable, depending on yield and other factors. One crew had earnings of only 88 cents an hour, whereas another earned an average of \$2.96 an hour.

Earnings in white asparagus were more variable with yield, age of bed, and type of soil than in green. Greatest variation was according to yield. Cutters on beds yielding under 35 pounds of white asparagus per day earned \$1.28 an hour, while those on beds yielding over 35 pounds averaged \$2.19. The variation in earnings in green asparagus was from \$1.48 an hour on beds yielding less than 25 pounds an acre a day to \$2.04 per hour on beds yielding over 40 pounds.

Variation in earnings according to age of the bed were less pronounced. However, cutting of the youngest beds and those on which the asparagus had become old and tough had already been discontinued. Hence the range in age of bed was less broad than was desired.

Variations in earnings with type of soil were even less significant.

Of the Filipino crews surveyed, approximately one-fourth had average earnings of less than \$1.25 per worker per hour, one-third had earnings averaging between \$1.25 and \$2.00 an hour, and the balance of 42 percent had earnings of over \$2.00 an hour (table 16).

On a daily basis, approximately one-fourth of the crews had average earnings of \$10.00 per worker; 39 percent had average earnings of between \$10.00 and \$15.00 and the balance of 37 had earnings over \$15.00 per day.

Earnings of Mexican nationals were much smaller. Those working on piece rates averaged \$1.03 an hour and \$7.10 per day. Those working on an hourly basis were paid 75 cents an hour, which amounted to \$7.90 in their average day of 10.8 hours.

Table 16.--Filipino asparagus cutters earning specified amounts, Sacramento-San Joaquin Delta, California, May 25 - June 10, 1945.

	Cutters earning specified amounts	
	Number	Proportion
Workers covered	506	100
Earnings per hour		
Under \$1.25	122	24
\$1.25 to \$1.99	170	34
\$2.00 and over	214	42
Earnings per day		
Under \$10.00	124	24
\$10.00 - \$14.99	196	39
\$15.00 and over	186	37

Perquisites.--Practically all Filipino cutters live in bunkhouses on the growers' farms. These vary in size, cleanliness, and comfort, but are sufficiently desirable that workers generally move into them a month or two before the cutting season starts. The grower usually also furnishes water, lights, and fuel.

Mexican nationals have been furnished the same type of housing. Those workers, however, seldom board themselves. Their meals are generally provided them at a charge of \$1.50 per person per day.

Method of sampling.--The Cannerymen's League of California prepares an annual list of asparagus growers, showing their location and the acreage to be cut by age of bed, and estimated yield. There are 300 to 400 growers in the delta area. Growers using Mexican nationals were eliminated from the list before specifying a sample to be visited for information on Filipino cutters. In addition, small outlying tracts accounting for a total of about 3 percent of the asparagus acreage were eliminated.

Normally all beds 4 years of age and older are expected to be under harvest in late May and early June. (All cuttings from younger beds are made earlier in the season.) A quota sample was specified on the basis of the total acreage in beds 4 years of age and older. Labor requirements are about one man to 10 acres, and an overall quota of 5,000 acres was set in order to get information on about 500 Filipino cutters, or approximately a 10 percent sample. The total acreage to be included was allocated proportionately among the three principal parts of the producing area. Each

enumerator was supplied with a list of all growers in his territory with their acreage distribution. The enumerator was told to select growers in such a way as to obtain a distribution of acreage similar, on the basis of yield, age of bed, and type of asparagus, to that for the entire sub-area. This flexibility was necessary in order to avoid difficulties in contacting absent operators and those with language handicaps.

Some modifications of quotas had to be made after the enumerations were under way when it became evident that older, low-yielding beds were not being cut, and that some young beds were still under harvest. Data were obtained from a total of 54 crews and 548 workers.

Information on Mexican nationals was obtained from payroll records submitted to the War Food Administration. All available records for the comparable period on workers exclusively engaged in the asparagus harvest in this part of the State were used. These included about half of the 1200 Mexican nationals employed in this work.

WAGES IN THE CANTALOUPE HARVEST,
IMPERIAL COUNTY, CALIFORNIA
JUNE 17 - 23, 1945.

Cantaloupes are one of the most important crops in Imperial County. They mature there in May and June, being ready to market a month or two ahead of melons from most producing areas. The land in spring cantaloupes in Imperial County was estimated by the California Crop Reporting Service as 15,700 acres. In addition there were 3,170 acres of honeydews and 1,530 acres of honeyballs.

Crop conditions for the 1945 season were not favorable. As ripening was delayed by cool weather in the spring, the harvest season was shorter than usual and yields were somewhat lower than anticipated. Some fields were affected by the adverse conditions much more than others. The resulting variations in yield produced a wide variation in the earnings of the workers.

Table 17.--Workers employed in the early cantaloup harvest, Imperial County, 1945. 1/

Week ending	Workers employed	Percent harvest complete
June 2	350	-
June 9	800	10
June 16	1,800	20
June 23	2,875	25
June 30	2,875	45
July 7	2,875	80
July 14	2,600	90
July 21	1,500	95

1/ Data from California Weekly Farm Labor Reports; Farm Labor Project, Agricultural Extension Service.

Though picking for the 1945 season started by the middle of May, the harvest did not assume large proportions until the first part of June. By the week of June 17 - 23, 2,875 workers were employed and the harvest was proceeding rapidly as all melons were tending to ripen at once (table 17). The Bureau of Agricultural Economics survey of wage rates in the area was taken from June 17 - 23, just as the peak period was starting. In addition to the cantaloup harvest, the survey covered harvest operations for honeydews and honeyballs, although the number of workers engaged in the latter two crops was very small and results were not separated in the analysis.

Melon harvest operations are ordinarily handled by the shippers who have either grown the melons themselves or purchased them in the field from the grower. The shippers generally hire the melon picking crews directly or through a labor contractor. Members of picking crews are assigned definite acreages to cover and ordinarily pick them over several times a week. Melons are picked at different stages of ripeness, depending on how far they are to be shipped. The picker must be able to tell from the color, feel,

and stem of the melon just when it has reached the proper stage for picking. He must handle the vines carefully so as not to injure or destroy them. Ripe melons are pulled off the stem and placed in the picking sack carried over the worker's shoulder. When full, the sack is emptied into a truck or field box. The picking sack is equipped with an opening at the bottom so that it may be pulled up and away from the melons without bruising them.

Type of workers.---All the workers covered in the survey were males of Mexican descent. Operators reported that a fairly high proportion may have been "wet-backs" or "line jumpers," that is, persons who had slipped over the Mexican border in order to work. However, operators had little personal contact with their workers and no way of knowing just where they lived.

Rates of pay.---Records were obtained in regard to 625 workers in 27 crews. Workers in 22 of these crews were paid on a piece rate basis, those in 5 were paid by the hour. Workers in the latter group usually worked for the same shipper the year around. They sacrificed high hourly earnings during the harvest season in order to be sure of employment during the slack period.

Hourly workers were paid \$1.00 per hour without exception. Seven different piece rates were paid, varying largely according to yield and size of the melons. The most common piece rate was 17 cents a packed out crate, plus 3 cents a crate bonus for workers who remained until the end of the season. Most workers remain to collect their bonus, hence the rates paid actually amounted to 20, 21, and 22 cents (table 18).

Table 18.--Wage rates paid for picking cantaloups, Imperial County, California, June 17 - 23, 1945.

Rate	Workers at each rate	
	Number	Percent
All workers	504	100
<u>Time basis</u>		
\$1.00 per hour	93	18
<u>Crate basis</u> ^{1/}		
17¢ plus 3¢ bonus ^{2/}	265	53
17¢ plus 4¢ bonus	36	7
20¢	61	12
20¢ plus 2¢ bonus	30	6
21¢	19	4

^{1/} On basis of packed out crates and is for picking only.

^{2/} Bonus paid to workers who remain until end of season.

Piece rate workers ordinarily were paid on a crew basis with each member sharing equally in the proceeds. This fact, along with the bonus, tended to hold the crews together through the season.

Hours of work.--Some firms were much busier than others. Their melons had been ripening slowly and with the approach of hot weather were all ripening at once. One crew averaged 12 hours a day for 7 days in the week. A few firms had not yet reached this high stage of operation. Crews for one firm averaged only 5.2 hours a day, those for another firm worked only 5 days during the week. Irregularity of work was much greater among crews paid on an hourly basis than among those working at piece rates. The piece rate crews averaged 11.2 hours a day and 6.9 days a week (table 19). Those on an hourly basis averaged 6.2 hours a day for 6.8 days a week. The former averaged 78 hours of work during the week and the latter 42.4.

Table 19.--Hours of work of workers picking cantaloups, Imperial County, California, June 17 - 23, 1945.

	Hourly crews	Piece rate crews
Workers reporting	93	265 1/
Hours per day	6.2	11.2
Days per week	6.8	6.9
Hours per week	42.4	78.0

1/ Figure is only for workers on whom complete data were obtained. Reports on 267 piece rate workers were incomplete as to time worked. Their earnings were almost 15 percent less than for those giving complete reports.

Performance.--Output per worker was obtained only for the piece rate crews and was highly variable. Two crews had a daily output of only 25 crates per worker; several others averaged over 90 crates. The average for all piece rate crews was 71 crates (table 20). These daily outputs are associated with hours worked per day. Unfortunately however, hourly data were supplied only for 265 workers. These men picked an average of 76 crates a day, 6.8 crates an hour. Undoubtedly these high outputs were related to the fact that so many of the melons were ripening at one time. It seems probable that the workers could not continue at this speed throughout the season.

Some workers picked more than 600 crates during the survey week, but workers in one crew averaged less than 200 crates. The average for all piece rate workers was 490 crates.

Earnings.--Average earnings for all workers surveyed were \$12.70 a day and \$86.70 for the week. The hourly workers averaged only \$6.20 a day and \$42.30 during the week, the piece rate workers \$14.00 a day and \$96.70 for the week (table 20). The major difference in earnings between the two types of workers was in length of employment during the week, although piece rate workers earned \$1.35 an hour as compared to \$1.00 for the other group.

Table 20.--Output and earnings of cantaloup pickers, Imperial Valley, California, June 17 - 23, 1945.

	All workers	Type of worker	
		Hourly workers	Piece rate workers
Workers reporting	507	93	411
Crates picked			
Per hour	6.8 $\frac{1}{2}$	$\frac{2}{3}$	6.8 $\frac{1}{2}$
Per day	71 $\frac{3}{4}$	-	71
Per week	490	-	490
Earnings $\frac{1}{4}$			
Per hour	\$ 1.26 $\frac{5}{8}$	\$ 1.00	\$ 1.35 $\frac{1}{2}$
Per day	12.70	6.20	14.00
Per week	86.70	42.30	96.70

- 1/ Data on hourly earnings and output secured only for 265 piece rate workers.
2/ Output data not obtained for hourly workers.
3/ Includes piece rate workers only.
4/ Earnings include bonus payments as most workers remain till end of season to collect them.
5/ Average for 93 hourly workers and 265 piece rate workers.

The range in earnings of the piece rate crews was quite significant. Their earnings were commonly around \$14.00 a day and from \$90 to \$100 a week. However, members of one crew made as little as \$40.00 during the week while another earned close to \$150.

On a percentage basis, 29 percent of the workers earned less than \$9 a day and \$60 a week; 30 percent earned from \$9 to \$15 a day and from \$60 to \$100 a week. The remainder earned over \$15.00 a day and \$100 a week (table 21).

Table 21.--Crews and workers who earned specified amounts, Cantaloup harvest, Imperial Valley, California, June 17 - 23, 1945.

Earnings	Crews and workers earning specified amounts			
	Number	Proportion	Number	Proportion
	Crews		Workers	
All crews and workers	19	100	504	100
Per day				
Under \$9.00	7 $\frac{1}{2}$	37	143 $\frac{1}{2}$	29
\$9.00 to \$14.99	5	26	152	30
\$15.00 and over	7	37	209	41
Per week				
Under \$60.00	7 $\frac{1}{2}$	37 $\frac{1}{2}$	143 $\frac{1}{2}$	29
\$60.00 to \$99.99	5	26	152	30
\$100.00 and over	7	37	209	41

- 1/ Includes 5 crews and 93 hourly workers.

Perquisites.--It is the usual practise in this operation for the workers to obtain their own food and lodging in town and for the shippers to transport them to and from the fields.

Method of sampling.--Most of the melon acreage in the Imperial Valley is handled by a small number of grower-shippers at harvest time. Information on the acreage of cantaloups owned by each shipper as of June 5 was obtained from the County Agricultural Commissioner. Independent estimates of the expected carlot movement of cantaloups by each shipper during the survey week indicated that acreages were well correlated with the current volume of harvesting. Earnings were expected to be affected by the amount of acreage under control of the employing shipper, since those with large acreages could provide fuller employment during the week than those with small acreages.

Geographic location was not expected to affect earnings, but for convenience in assigning work to enumerators the 36 grower-shippers were divided into those in the northern part of the valley (at Brawley and Calipatria) and those in the southern part (at Calexico, El Centro, and Holtville). The two geographic groups were subdivided into large and small firms, with those having 400 acres or more classified as large. A sample consisting of every fourth firm in each sub-group was specified, or a total of 10 firms.

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